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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

NGUYEN, D

ART UNIT

PAPER NUMBER


2871

DATE MAILED: 10/24/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No. <b>09/679,455</b>	Applicant(s) <b>Takeda et al.</b>	
Examiner <b>Dung Nguyen</b>	Art Unit <b>2871</b>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 25, 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 149-187 is/are pending in the application.
- 4a) Of the above, claim(s) 157, 158, 173, 174, and 180-187 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 149-156, 159-172, and 175-179 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/097,027.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s): 8, 10, 1 20) ☐ Other:

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### **DETAILED ACTION**

Applicant's election of group I, the species (d) in paper No. 12 is acknowledged.

#### ***Specification***

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Drawings***

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second protrusions which formed by the color filter arranged outside the display areas of the pixels (claims 149, 152, 163, 165), the second protrusions include portions formed by stacking plural kinds of color filters of different colors (claim 153, 169), three kinds of color filters stacked at the stacked portions (claim 159, 175-176) must be shown or the feature(s) cancelled from the claim(s). No new matter should be entered.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 149-156 and 159-161 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 149, it is confusing and unclear how a liquid crystal layer can be sandwiched between a color filter and a counter substrate. According to the specification and drawings, the color filter is formed on the counter substrate (namely color substrate) and sandwiching the liquid crystal layer with a TFT substrate. Therefore, it is assumed for the purpose of examination that the liquid crystal layer is sandwiched between two substrates (i.e., color substrate and TFT substrate).

5. Claims 177-178 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding the above claims, it is unclear what “protrusions” referred to since there is two kind of protrusions in based claim 162. In addition, it is confusing what is meant by “a counter surface” of the second substrate. According to claim 166, the second substrate is a TFT substrate having a pixel electrode thereon. Therefore, it is assumed that Applicants tend to claim a pixel surface of the second substrate.

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***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

7. Claims 149-156, 159-172 and 175-179 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurauchi et al., US Patent No. 5,917,572.

The above claims are anticipated by Kurauchi et al. figure 23 which disclose a liquid crystal display (LCD) device comprising:

- a TFT substrate (161);
- a color substrate (211);
- a liquid crystal layer (40) therebetween;
- a first protrusion (213) providing inside display areas of pixels as claimed;
- a second protrusion (214) as a spacer for defining a gap of the LCD cell and providing outside the display areas;
- a color filter including plural kinds of color filters (R, G, B) and stacked on each other (214R, 214G, 214B)
- the second protrusion form light shielding areas (212).

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***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Dung Nguyen whose telephone number is (703) 305-0423. The fax phone number for this Group is (703) 308-7722.

Any information of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-0956.

DN  
10/22/2001

  
TOANTON  
PRIMARY EXAMINER